II. CLAIM AMENDMENTS

1. (Previously Presented) A system for optically sensing manufacturing defects in organic photo conductor (OPC) devices, the system comprising:

an illumination source for illuminating the OPC device;

at least one optical sensor positioned to view the illuminated OPC, wherein the optical sensor provides a band of captured illumination with gray level picture data of a plurality of distinguishable pixels which are darker pixels or lighter pixels; and

a controller connectable to the optical sensor for determining a ratio of a number of distinguishable pixels to a total number of pixels in the band, the controller comprising a threshold detector for sensing, based on said ratio, bottom edge wipe (BEW) manufacturing defects in the OPC device.

2. (Original) A system as in claim 1 wherein the illumination source comprises a light emitting diode (LED).

3. (Original) A system as in claim 1 wherein the illumination source comprises a LASER.

4. (Original) A system as in claim 1 wherein the illumination source comprises:

an emitter, wherein the emitter emits electromagnetic radiation of at least one wavelength.

5. (Original) A system as in claim 1 wherein the at least one optical sensor comprises a charge coupled device (CCD) camera.

6. (Previously Presented) A system as in claim 1 wherein the controller is associated with a data storage area, wherein the data storage area is usable to store predetermined threshold values and classification results.

7. (Original) A system as in claim 1 wherein the threshold detector comprises an array of pixels and the controller further comprises a pixel counter for counting.

8. (Original) A system as in claim 1 wherein the controller is associated with a monitoring device for alerting a user.

9. (Original) A system as in claim 8 wherein the monitoring device further comprises a visual display monitor.

10. (Original) A system as in claim 8 wherein the monitoring device further comprises an audio monitor.

11. (Previously Presented) A method for optically classifying residues on at least one bottom edge area of an organic photo conductor (OPC) device, the method comprising the steps of:

illuminating the at least one bottom edge area of the OPC device;

capturing reflected illumination from the at least one illuminated bottom edge area of the OPC device, the step of capturing including a step of providing a band of captured illumination having gray level picture data of a plurality of distinguishable pixels which are darker pixels or lighter pixels;

comparing the captured reflected illumination with at least one threshold level, the step of comparing including a step of determining a ratio of a number of distinguishable pixels to a total number of pixels in the band; and

classifying the at least one bottom edge area of the OPC device based upon the comparison of the captured reflected illumination with the at least one threshold level.

12. (Original) A method as in claim 11 wherein the step of illuminating the at least one bottom edge area of the OPC device further comprises the step of illuminating the OPC bottom edge area with electromagnetic radiation of at least one wavelength.

13. (Original) A method as in claim 11 wherein the step of capturing reflected illumination from the at least one

illuminated bottom edge area of the OPC device further comprises the step of digitizing the captured reflected illumination.

14. (Original) A method as in claim 11 wherein the step of capturing reflected illumination from the at least one illuminated bottom edge area of the OPC device further comprises the step of converting the captured reflected illumination to an analog signal.

15. (Original) A method as in claim 11 wherein the step of comparing the captured reflected illumination with at least one threshold level further comprises the step of comparing the captured reflected illumination with a predetermined pixel count.

16. (Previously Presented) A method for optically classifying residues on at least one bottom edge area of an Organic Photo Conductor (OPC) device, the method comprising the steps of:

illuminating the at least one bottom edge area of the OPC device;

capturing reflected illumination from the at least one illuminated bottom edge area of the OPC device, the step of capturing including a step of providing a band of captured illumination having gray level picture data of a plurality of distinguishable pixels which are darker pixels or lighter pixels;

comparing the captured reflected illumination with at least one threshold level, the step of comparing including a step of determining a ratio of a number of distinguishable pixels to a total number of pixels in the band; and

classifying the at least one bottom edge area of the OPC device based upon the comparison of the captured reflected illumination with the at least one threshold level;

wherein the step of comparing the captured reflected illumination with at least one threshold level further comprises the step of comparing the captured reflected illumination with a predetermined pixel count; and

the step of comparing the captured reflected illumination with a predetermined pixel count further comprises the step of comparing the captured reflected illumination with a predetermined gray level pixel count.

17. (Original) A method as in claim 11 wherein the step of comparing the captured reflected illumination with at least one threshold level further comprises the step of comparing the captured reflected illumination with a predetermined analog voltage level.

18. (Previously Presented) A method as in claim 11 wherein the step of classifying the at least one bottom edge area of the OPC device further comprises the step of classifying the at least one bottom edge area as acceptable or alternatively as non-acceptable.

19. (Previously Presented) A method as in claim 11 wherein the step of classifying the at least one bottom edge area of the OPC device further comprises the step of classifying the at least one bottom edge area as one of acceptable, non-acceptable, and quasi-acceptable.

20. (Previously Presented) A method for optically discriminating an Organic Photo Conductor (OPC) device, the method comprising the steps of:

illuminating a bottom edge area of the OPC device;

positioning an optical sensor to view the illuminated OPC bottom edge area, the optical sensor providing a band of captured illumination having gray level picture data of a plurality of distinguishable pixels which are darker pixels or lighter pixels; and

providing a controller connectable to the optical sensor, the controller having a threshold discriminator that determines a ratio of a number of distinguishable pixels to a total number of pixels in the band for classifying the OPC device.

21. (Original) A method as in claim 20 wherein the step of illuminating the bottom edge area of the OPC device further comprises illuminating the bottom edge area of the OPC device with a visible light source.

22. (Original) A method as in claim 20 wherein the step of positioning the optical sensor to view the illuminated OPC bottom edge area further comprises positioning a charge coupled device (CCD) camera.

23. (Previously Presented) A method for optically discriminating an Organic Photo Conductor (OPC) device, the method comprising the steps of:

illuminating a bottom edge area of the OPC device;

positioning an optical sensor to view the illuminated OPC bottom edge area, the optical sensor providing a band of captured illumination having gray level picture data of a plurality of distinguishable pixels which are darker pixels or lighter pixels; and

providing a controller connectable to the optical sensor, the controller having a threshold discriminator that determines a ratio of a number of distinguishable pixels to a total number of pixels in the band for classifying the OPC device;

wherein the step of providing the controller connectable to the optical sensor further comprises the steps of:

providing a gray level band discriminator;

comparing the ratio of a number of pixels within a predetermined gray level band to a total number of gray level pixels to a predetermined ratio; and

classifying the OPC device as acceptable, non-acceptable, or quasi-acceptable based upon said comparison.

24. (Currently Amended) A system for optically sensing a manufacturing defect in an organic photo conductor (OPC) device, the system comprising:

a camera positioned to view a bottom edge wipe (BEW) region of the OPC device, wherein the camera provides an image of the BEW region with gray level picture data having a plurality of pixels including darker gray-level pixels and lighter gray-level pixels; and

a controller for processing the picture data of the image, the controller determining a band of pixels having a value of gray-level darkness, and wherein the controller provides a ratio of a number of pixels in the band to a total number of pixels in the image, a magnitude of the ratio serving as a measure of the defect.

25. (Previously Presented) A system as in claim 24 further comprising a source of illumination for illuminating the OPC device, the camera being responsive to illumination reflected by the OPC device, and wherein the controller comprises a threshold detector for sensing the value of said ratio to establish the presence of the defect.

26. (Previously Presented) A method for optically classifying residues on a bottom edge wipe (BEW) region of an

organic photo conductor (OPC) device, the method comprising the steps of:

providing an image of a BEW region of the OPC device, wherein the image of the BEW region presents gray level picture data having a plurality of pixels including darker gray-level pixels and lighter gray-level pixels;

processing the picture data of the image by determining a band of pixels having a value of gray-level darkness, and wherein the processing includes a further step of providing a ratio of a number of pixels in the band to a total number of pixels in the image, a magnitude of the ratio serving as a measure of BEW defects.

27. (Previously Presented) A method as in claim 26, further comprising the steps of:

illuminating the BEW region of the OPC device, wherein the step of providing the image includes a capturing of illumination reflected from the BEW region, and the step of processing the data includes a step of comparing the captured reflected illumination with a threshold level to determine said ratio; and

classifying the residue of the BEW region of the OPC device based upon a comparison of the captured reflected illumination with the threshold level.